



Docket No.: 193413US0PCT

ASSISTANT COMMISSIONER FOR PATENTS  
WASHINGTON, D.C. 20231

RE: Application Serial No.: 09/582,216  
Applicants: Peter FICKEISEN, et al.  
Filing Date: July 20, 2000  
For: FLOORING ADHESIVES  
Group Art Unit: 1714  
Examiner: C. SHOSHO

SIR:

Attached hereto for filing are the following papers:

**REPLY BRIEF (in triplicate) & REQUEST FOR ORAL HEARING (in duplicate)**

Our check in the amount of **\$280.00** is attached covering any required fees. In the event any variance exists between the amount enclosed and the Patent Office charges for filing the above-noted documents, including any fees required under 37 C.F.R. 1.136 for any necessary Extension of Time to make the filing of the attached documents timely, please charge or credit the difference to our Deposit Account No. 15-0030. Further, if these papers are not considered timely filed, then a petition is hereby made under 37 C.F.R. 1.136 for the necessary extension of time. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.

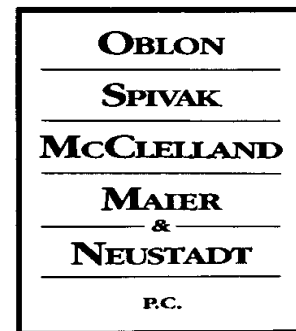
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**IN THE UNITED STATES PATENT & TRADEMARK OFFICE**

IN RE APPLICATION OF: :  
Peter FICKEISEN, et al. : GROUP ART UNIT: 1714  
SERIAL NO.: 09/582,216 :  
FILED: July 20, 2000 : EXAMINER: C. SHOSHO  
FOR: FLOORING ADHESIVES

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**REPLY BRIEF**

ASSISTANT COMMISSIONER FOR PATENTS  
WASHINGTON, D.C. 20231

SIR:

This is a Reply Brief in reply to the Examiner's Answer dated August 7, 2002,  
(Answer).

Applicants wish to thank Examiner Shosho for withdrawing Tsuruoka et al as a  
reference, thereby rendering moot issue 3) of Applicants' Appeal, as stated in the Appeal  
Brief filed May 30, 2002.

The Examiner holds that Claims 9-35 are anticipated by CA 2,182,743. The  
Examiner argues that even though there is no disclosure of the number average molecular  
weight of the soluble fraction of the polymer it would be inherently the same as that claimed  
by Applicants. However, Applicants have shown that this is not the case. As discussed in the  
Appeal Brief, the Rule 132 Declaration (submitted in this application on February 15, 2002)  
shows that the gel content and the number average molecular weight of the polymers of  
Examples 1A to 4A of CA 2,182,743 are different from the claimed gel content and number

average molecular weight. They are as follows:

<u>CA 2,182,743</u> , Polymer of example #	gel content %	Molecular weight Mn g/mol (Refractive index signal)
1A	15±1	43000±1000
2A	57±1	30500±500
3A	45±2	41000±3000
4A	55±1	26500±500

Clearly, none of the Examples of CA 2,182,743 has the required combination of gel content of 5 to 40% and Mn of less than 30,000. In Example 1, the molecular weight is outside the required range. In Examples 2 and 3, the gel content and the molecular weight are outside the required range. In Example 4, the gel content is outside the required range.

Furthermore, the Examiner argues that CA 2,182,743 should be considered for all that it teaches. In considering CA 2,182,743 for all that it discloses, one of ordinary skill in the art learns that this reference discloses broad ranges for each component of the aqueous composition: 20-99% by weight of a polymer having a glass transition temperature below - 25°C and 1-80% by weight of a filler (CA 2,182,743, page 1, lines 4-10). The number average molecular weight Mn of the polymer is greater than 10,000. The proportion of the insoluble components in the polymer is from 0-90 % by weight (CA 2,182,743, page 3, lines 22-31). The composition is used, for example, as a floor adhesive. Based on a consideration of the broadest ranges disclosed in CA 2,182,743, one of ordinary skill in the art would assume that any given combination of any amount of polymer, any amount of filler, any molecular weight and gel content of the polymer exhibits the same adhesive properties. However, the Examples of CA 2,182,743 disclose that this is not the case. Clearly, there are specific combinations of amount of polymer, amount of filler, molecular weight and gel

content of the polymer that exhibit better adhesive properties than other combinations.

Namely, Examples 1A and 3A (molecular weight and gel content are shown above) perform better than Examples 2A and 4A. Thus, according to the Examples of CA 2,182,743 a composition wherein either the molecular weight is higher than the claimed molecular weight (Example 1A) or a composition wherein both, the gel content and the molecular weight are higher than those claimed (Example 3A) work best. The wet grab properties of the floor adhesives 1A-4A of CA 2,182,743 are summarized below as copied from page 11, Table 1, of the patent.

Wet grab (N/5cm)	1A	2A	3A	4A
after 10 min.	18	4	10	4
20 min.	45	16	32	23
30 min.	55	42	50	40

Since the Examples of CA 2,182,743 disclose that compositions having either a higher molecular weight than the claimed molecular weight (Example 1A) or a higher gel content and the molecular weight than those claimed (Example 3A) work best, there is simply no suggestion or motivation to use a composition as claimed. Why would one combine a gel content of 5 to 40% by weight and a number-average molecular weight of a tetrahydrofuran-soluble fraction of less than 30,000?

Furthermore, Applicants wish to point to the peel values of Example 4 and Comparative Example 1 of the present invention. Comparative Example 1 has a gel content (54%) which is close to that of the Examples of CA 2,182,743 (57, 45, 55%). However, the peel value of Comparative Example 1 (0.34 N/mm after 10 min.) is poor compared to that of

Example 4 (1.22 N/mm after 10 min.). Thus, a composition having the gel content exemplified by CA 2,182,743 has a poor peel value after 10 min. The composition according to the present invention has a superior peel value. The following Table summarizes the data for Comparative Example 1 and Example 4 according to the present invention as copied from Tables 1 and 2 at pages 8 and 9 of the specification.

Example	gel content	number average molecular weight	peel value N/mm after 10 min.	peel value N/mm after 30 min.
Comparative Example 1	54%	26,000	0.34	0.24
Example 4  (according to present invention)	15	11,900	1.22	0.24

Furthermore, based on the disclosure of CA 2,182,743, a combination of the preferred embodiments may be assumed to be particularly advantageous: an aqueous composition having a solids content of 40 to 60 % by weight, a number-average molecular weight greater than 30,000 (without disclosing Mn of the tetrahydrofuran soluble fraction of the polymer), and an amount of filler of 40-60% by weight. This however, is very different from the claimed aqueous dispersion having a gel content of 5 to 40% by weight and a number-average molecular weight of a tetrahydrofuran-soluble fraction of less than 30,000, and 50 to 90% by weight of a filler. Thus, CA 2,182,743 does not exemplify a composition as claimed and regards a different composition as advantageous.

Accordingly, Appellants submit that it is reasonable to conclude that the claimed

range is not disclosed with “sufficient specificity” to constitute an anticipation of the claims. In addition, Appellants submit that the unexpected results render the claims unobvious.

Further, the Examiner holds that Claims 9-14 and 20 are obvious over Kawashima et al in view of CA 2,182,743.

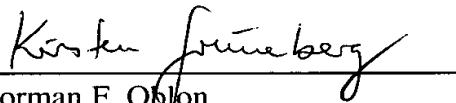
The aqueous dispersion as claimed has 50 to 90% by weight of a filler which is a chalk having an average particle diameter of from 2 to 50  $\mu\text{m}$ , a quartz flour having an average particle diameter of from 3 to 50  $\mu\text{m}$  or a combination thereof.

Kawashima et al do not disclose or suggest the claimed combination of gel content, number-average molecular weight and amount/type of filler. Specifically, Kawashima et al fail to disclose or suggest the claimed fillers and their particle size. This has been recognized by the Examiner (Final Office Action, page 5, lines 8-10 and in the Examiner’s Answer, page 11, lines 15 and 16). Further, there is no suggestion anywhere in Kawashima et al to use fillers of the claimed size.

Applicants continue to maintain that the presently-claimed invention is patentable over the applied prior art. Accordingly, it is respectfully requested that the rejections be REVERSED.

Respectfully submitted,

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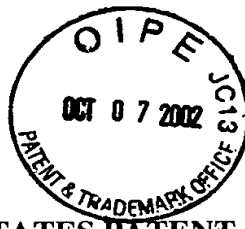
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Applicants representative hereby respectfully requests that an Oral Hearing be scheduled in the above-identified application.

A check in the amount of **\$280.00** to cover the fee is enclosed herewith and any further charges may be made against the Attorney of Record's Deposit Account No. **15-0030**.

A duplicate copy of this sheet is enclosed.

Respectfully submitted,

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